

KELLOGG COMMUNITY COLLEGE
INDUSTRIAL TECHNOLOGY
COURSE OPTIONS

FALL 2024

Certificate: 30 credits

Associate in Applied Science: 60 credits (combination of industrial technology, technical electives, and general education credit requirements)

All costs are subject to change without notice. Please call 269-965-4137 to verify.

Module Subject Code and Number	Module Title	Credit	Contact Hours	Lab Fees	Tuition	Total Cost
<input type="checkbox"/> INT C910-7201	IND TECHNOLOGY ORIENTATION		2	0.00	0.00	0.00
The orientation must be completed at the RMTC in Battle Creek prior to registration. Please call 269.965.4137 to verify available orientation times.						
UNIT 05 MATHEMATICS						
<input type="checkbox"/> INT 05010-7201	PLANE GEOMETRY LINES ANGLES	0.58	14	6.00	158.53	164.63
<input type="checkbox"/> INT 05020-7201	PLANE GEOMETRY TRIANGLES	0.42	10	6.00	114.87	120.87
<input type="checkbox"/> INT 05030-7201	PLANE GEOMETRY CIRCLES	0.42	10	6.00	114.87	120.87
<input type="checkbox"/> INT 05040-7201	PLANE GEOMETRY CONSTRUCT REVIE	0.38	9	6.00	103.93	109.93
<input type="checkbox"/> INT 05050-7201	GEOMETRIC FIGURES AREAS	0.58	14	6.00	158.63	164.63
<input type="checkbox"/> INT 05060-7201	GEOMETRIC FIGURES VOLUMES	0.46	11	6.00	125.81	131.81
<input type="checkbox"/> INT 05070-7201	GEOMETRIC FIGURE AREAS VOLUMES	0.25	6	6.00	68.38	74.38
<input type="checkbox"/> INT 05080-7201	TRIG FUNCTIONS TRIANGLE CALC	0.58	14	6.00	158.63	164.63
<input type="checkbox"/> INT 05090-7201	TRIG MACHINE APPLICATIONS	0.42	10	6.00	114.87	120.87
<input type="checkbox"/> INT 05100-7201	SOLVING OBLIQUE TRIANGLES	0.50	12	6.00	136.75	142.75
<input type="checkbox"/> INT 05110-7201	TRIG ACHIEVEMENT REVIEW	0.33	8	6.00	90.26	96.26
UNIT TOTAL		4.92	118	66.00	1345.63	1411.63
UNIT 10 APPLIED SCIENCE AND MATERIALS						
<input type="checkbox"/> INT 10010-7201	PRINCIPLES OF FERROUS METALS	0.63	15	113.00	172.31	285.31
<input type="checkbox"/> INT 10020-7201	PRINCIPLES NON FERROUS METALS	0.63	15	83.00	172.31	255.31
<input type="checkbox"/> INT 10030-7201	PRINCIPLES OF PLASTICS	0.42	10	13.00	114.87	127.87
<input type="checkbox"/> INT 10040-7201	PRINCIPLES OF CERAMICS	0.42	10	13.00	114.87	127.87
<input type="checkbox"/> INT 10050-7201	PRINCIPLES OF COMPOSITES	0.42	10	13.00	114.87	127.87
<input type="checkbox"/> INT 10060-7201	STATICS AND DATA ACQUISITION	0.42	10	20.00	114.87	134.87
<input type="checkbox"/> INT 10070-7201	THERMODYN ENERGY HEAT TRANSFER	1.00	24	36.00	273.50	309.50
<input type="checkbox"/> INT 10080-7201	DYNAMICS FORCE AND MOTION	1.13	27	101.00	309.06	410.06
<input type="checkbox"/> INT 10090-7201	FLUIDS	0.33	8	10.00	90.26	100.26
UNIT TOTAL		5.40	129	402.00	1,476.92	1,878.92
UNIT 15 PRODUCT DESIGN ELEMENTS						
<input type="checkbox"/> INT 15010-7201	FUNDAMENTALS OF PRINT READING	0.92	22	77.00	251.62	328.62
<input type="checkbox"/> INT 15020-7201	MACHINE PRINTS	0.17	4	15.00	46.50	61.50
<input type="checkbox"/> INT 15030-7201	ELECTRICAL PRINTS	0.29	7	77.00	79.32	156.32
<input type="checkbox"/> INT 15040-7201	HYDRAULIC PNEUMATIC PRINT	0.29	7	17.00	79.32	96.32
<input type="checkbox"/> INT 15050-7201	WELDING PRINTS	0.08	2	17.00	21.88	38.88
<input type="checkbox"/> INT 15060-7201	PIPING PLUMBING PRINTS	0.21	5	17.00	57.44	74.44
<input type="checkbox"/> INT 15070-7201	AC REFRIGE SHEET METAL PRINT	0.21	5	17.00	57.44	74.44
<input type="checkbox"/> INT 15080-7201	BUILDING PRINTS	0.08	2	15.00	21.88	36.88
<input type="checkbox"/> INT 15090-7201	GEOMETRIC DIMENSION TOLERANCE	0.17	4	13.00	46.50	59.50
UNIT TOTAL		2.42	58	265.00	661.90	926.90
UNIT 20 STANDARDS AND REGULATIONS						
<input type="checkbox"/> INT 20010-7201	INTRO MANUFACTURING STANDARDS	0.13	3	111.00	35.56	146.56
<input type="checkbox"/> INT 20020-7201	OVERVIEW OF STANDARDS DEVELOP	0.33	8	3.00	90.26	93.26
<input type="checkbox"/> INT 20030-7201	STANDARDS LEGAL ISSUES	0.13	3	3.00	35.56	38.56
<input type="checkbox"/> INT 20040-7201	GOOD MANUFACTURING PRACTICE	0.21	5	103.00	57.44	160.44
UNIT TOTAL		0.80	19	220.00	218.82	438.82
UNIT 25 PROCESS APPLICATIONS AND OPERATIONS						
<input type="checkbox"/> INT 25010-7201	MFG PROCESS PRODUCTION BASIC	0.63	15	43.00	172.31	215.31

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UNIT 25 PROCESS APPLICATIONS AND OPERATIONS (CONTINUED)						
<input type="checkbox"/> INT 25020-7201	PRODUCTION MACHINE OPERATIONS	0.79	19	93.00	216.07	309.07
UNIT TOTAL		1.42	34	136.00	388.38	524.38
UNIT 30 ELECTRO-MECHANICAL DEVICES, EQUIPMENT, AND SAFETY						
<input type="checkbox"/> INT 30010-7201	MANUFACTURING SAFETY	1.00	24	43.00	273.50	316.50
<input type="checkbox"/> INT 30020-7201	OSHA 10	0.92	22	31.00	251.62	282.62
<input type="checkbox"/> INT 30030-7201	OSHA 30	1.79	43	196.00	489.57	685.57
<input type="checkbox"/> INT 30040-7201	ARC FLASH LOCKOUT TAGOUT	0.29	7	48.00	79.32	127.32
<input type="checkbox"/> INT 30050-7201	ELECTROMECHANICAL DEVICE EQUIP	1.08	26	88.00	295.38	383.38
<input type="checkbox"/> INT 30060-7201	INTRO TO POWER TRANSMISSIONS	0.13	3	6.00	35.56	41.56
<input type="checkbox"/> INT 30070-7201	COUPLINGS	0.17	4	11.00	46.50	57.50
<input type="checkbox"/> INT 30080-7201	CLUTCHES AND BRAKES	0.33	8	10.00	90.26	100.26
<input type="checkbox"/> INT 30090-7201	FLAT BELT DRIVES	0.25	6	10.00	68.38	78.38
<input type="checkbox"/> INT 30100-7201	V BELT DRIVES	0.25	6	11.00	68.38	79.38
<input type="checkbox"/> INT 30110-7201	CHAIN DRIVES	0.25	6	13.00	68.38	81.38
<input type="checkbox"/> INT 30120-7201	SPEED REDUCERS	0.25	6	10.00	68.38	78.38
<input type="checkbox"/> INT 30130-7201	GEARS	0.25	6	6.00	68.38	74.38
<input type="checkbox"/> INT 30140-7201	LUBRICANTS AND LUBRICATION	0.17	4	6.00	46.50	52.50
<input type="checkbox"/> INT 30150-7201	ADDITIVES LUB ACT BEARING LUB	0.08	2	3.00	21.88	24.88
<input type="checkbox"/> INT 30160-7201	OILS AND THEIR APPLICATIONS	0.08	2	3.00	21.88	24.88
<input type="checkbox"/> INT 30170-7201	GENERAL SPECIAL PURPOSE GREASE	0.17	4	3.00	46.50	49.50
<input type="checkbox"/> INT 30190-7201	LUBRICATING SYSTEMS METHODS	0.13	3	3.00	35.56	38.56
<input type="checkbox"/> INT 30200-7201	LUBRICANT STORAGE AND HANDLING	0.08	2	3.00	21.88	24.88
<input type="checkbox"/> INT 30210-7201	NOMENCLATURE TYPES OF BEARING	0.17	4	6.00	46.50	52.50
<input type="checkbox"/> INT 30220-7201	HANDLING AND STORING BEARINGS	0.08	2	3.00	21.88	24.88
<input type="checkbox"/> INT 30230-7201	BEARING INSTALLATION REMOVAL	0.50	12	8.00	136.75	144.75
<input type="checkbox"/> INT 30240-7201	BEARING LUBRICATION AND SEALS	0.25	6	8.00	68.38	76.38
<input type="checkbox"/> INT 30250-7201	TROUBLESHOOT BEARING FAILURE	0.21	5	8.00	57.44	65.44
<input type="checkbox"/> INT 30260-7201	RIGGING SAFETY WEIGHT ESTIMATE	0.13	3	17.00	35.56	52.56
<input type="checkbox"/> INT 30270-7201	RIGGING SAFETY WIRE ROPE SLING	0.13	3	17.00	35.56	52.56
<input type="checkbox"/> INT 30280-7201	RIG SAFETY FIBER ROPE SLINGS	0.38	9	17.00	103.93	120.93
<input type="checkbox"/> INT 30290-7201	RIGGING SAFETY CHAIN SLINGS	0.08	2	17.00	21.88	38.88
<input type="checkbox"/> INT 30300-7201	RIGGING SAFETY HOISTS CRANES	0.21	5	17.00	57.44	74.44
<input type="checkbox"/> INT 30310-7201	RIGGING SAFETY HAND SIGNALS	0.13	3	17.00	35.56	52.56
<input type="checkbox"/> INT 30320-7201	HAND AND POWER TOOLS	0.67	16	26.00	183.25	209.25
<input type="checkbox"/> INT 30330-7201	FORKLIFT SAFETY	0.17	4	33.00	46.50	79.50
UNIT TOTAL		10.78	258	698.00	2948.44	3,646.44
UNIT 40 MAINTENANCE SYSTEMS DESIGN AND DEVELOPMENT						
<input type="checkbox"/> INT 40010-7201	PRODUCTION PRODUCT HANDLING	0.58	14	113.00	158.63	271.63
<input type="checkbox"/> INT 40020-7201	IND MAINTENANCE TROUBLESHOOTIN	0.92	22	138.00	251.62	389.62
<input type="checkbox"/> INT 40030-7201	PREVENTIVE PREDICTIVE MAINTEN	1.25	30	46.00	341.88	387.88
<input type="checkbox"/> INT 40040-7201	FUNDAMENTALS HYDRAULIC CIRCUIT	0.33	8	13.00	90.26	103.26
<input type="checkbox"/> INT 40050-7201	HYDRAULIC FLUIDS	0.33	8	23.00	90.26	113.26
<input type="checkbox"/> INT 40060-7201	CONTROL VALVES	0.33	8	23.00	90.26	113.26
<input type="checkbox"/> INT 40070-7201	FLOW CONTROL VALVES CIRCUITS	0.33	8	16.00	90.26	106.26
<input type="checkbox"/> INT 40080-7201	ACTUATORS	0.33	8	16.00	90.26	106.26
<input type="checkbox"/> INT 40090-7201	VALVES	0.33	8	13.00	90.26	103.26
<input type="checkbox"/> INT 40100-7201	HYDRAULIC CIRCUITS	0.33	8	23.00	90.26	113.26
<input type="checkbox"/> INT 40110-7201	REMOTE CONTROL FILTRATION TRBL	0.33	8	33.00	90.26	123.26
<input type="checkbox"/> INT 40120-7201	FACTS ABOUT AIR	0.33	8	23.00	90.26	113.26
<input type="checkbox"/> INT 40130-7201	AIR PREPARATION	0.33	8	13.00	90.26	103.26
<input type="checkbox"/> INT 40140-7201	AIR PIPING	0.33	8	23.00	90.26	113.26
<input type="checkbox"/> INT 40150-7201	PNEUMATIC ACTUATORS	0.33	8	13.00	90.26	103.26
<input type="checkbox"/> INT 40160-7201	PNEUMATIC VALVES	0.33	8	13.00	90.26	103.26

MODULES OFFERED AT THE REGIONAL MANUFACTURING TECHNOLOGY CENTER
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INDUSTRIAL TECHNOLOGY **FALL 2024**
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UNIT 40 MAINTENANCE SYSTEMS DESIGN AND DEVELOPMENT (CONTINUED)						
<input type="checkbox"/> INT 40170-7201	PNEUMATIC CYLINDER SPEED CNTRL	0.33	8	13.00	90.26	103.26
<input type="checkbox"/> INT 40180-7201	PNEUMATIC TROUBLESHOOTING	0.33	8	13.00	90.26	103.26
UNIT TOTAL		7.70	186	568.00	2106.03	2,674.03
UNIT 45 QUALITY AND LEAN MANUFACTURING						
<input type="checkbox"/> INT 45010-7201	INTRODUCTION TO QUALITY	1.71	41	23.00	467.69	490.69
<input type="checkbox"/> INT 45020-7201	COSTS AND TOOLS OF QUALITY	1.71	41	33.00	467.69	500.69
<input type="checkbox"/> INT 45030-7201	QUALITY SYSTEMS LEAN MFG	0.67	16	123.00	183.25	306.25
<input type="checkbox"/> INT 45040-7201	5S SYSTEM	0.33	8	73.00	90.26	163.26
<input type="checkbox"/> INT 45050-7201	TPM POKA YOKE AND LEAN THEORY	0.45	11	93.00	123.08	216.08
<input type="checkbox"/> INT 45060-7201	LEAN VISUAL WORKPLACE KAIZEN	0.29	7	43.00	79.32	122.32
<input type="checkbox"/> INT 45070-7201	VALUE STREAM MAPPING SETUP RED	0.38	9	73.00	103.93	176.93
<input type="checkbox"/> INT 45080-7201	METROLOGY	0.29	7	13.00	79.32	92.32
<input type="checkbox"/> INT 45090-7201	MACHINE VISION	1.38	33	173.00	377.43	550.43
UNIT TOTAL		7.21	173	647.00	1971.97	2618.97
TOTAL		40.65	977	3,002.00	11118.09	14120.09

ASSESSMENTS

<input type="checkbox"/> *INT C410-7201	MSSC CERTIFIED PRODUCTION TEC		6	280.00	0.00	280.00
<input type="checkbox"/> *INT C420-7201	MSSC SAFETY ASSESSMENT		1.5	80.00	0.00	80.00
<input type="checkbox"/> *INT C430-7201	MSSC QUALITY ASSESSMENT		1.5	80.00	0.00	80.00
<input type="checkbox"/> *INT C440-7201	MSSC MFG PROCESSES ASSESSMENT		1.5	80.00	0.00	80.00
<input type="checkbox"/> *INT C450-7201	MSSC MAINTENANCE ASSESSMENT		1.5	80.00	0.00	80.00
<input type="checkbox"/> *INT C460-7201	ASQ QUALITY INSPECTOR CERT		4	250.00	0.00	250.00
<input type="checkbox"/> *INT C470-7201	ASQ QUALITY PROCESS ANALYST		4	250.00	0.00	250.00
<input type="checkbox"/> *INT C480-7201	ASQ QUALITY IMPROVEMENT ASSOC		3	250.00	0.00	250.00
<input type="checkbox"/> *INT C490-7201	SME CMFGT PRE-TEST		3	280.00	0.00	280.00
<input type="checkbox"/> *INT C500-7201	SME CMFGT CERTIFICATION		3	320.00	0.00	320.00

*Module(s) cannot be paid for using certain types of financial aid. Please direct all inquiries to the staff at the RMTTC registration desk.

FOR OFFICE USE ONLY

Instructor Approval _____ Date _____

Total Credit _____ Total Contact _____ Total Cost _____